



Receipt  
#2

P07 43084 CEDAR

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Date: December 22, 1999

In re application of: Henry C. Lin

Serial No. 09/420,046

Filed: October 18, 1999

For: METHOD AND COMPOSITIONS FOR IMPROVING DIGESTION  
AND ABSORPTION IN THE SMALL INTESTINE THERAPIES

Examiner: Unassigned

Unit: 1614

JAN 04 2000

RECEIVED

REQUEST FOR CORRECTION OF FILING RECEIPT

TECH CENTER 1600/2900

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I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO THE ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D. C. 20231, ON <u>December 22, 1999</u>	
BY <u>ANN WEISS</u>	DATE <u>December 22, 1999</u>
(DATE OF SIGNATURE)	

Dear Sir or Madam:

Applicant requests correction of Filing Receipt with respect to the above-referenced application as indicated on the enclosed copy of the Filing Receipt recently received.

The first page of the above-referenced application (copy enclosed) states that:

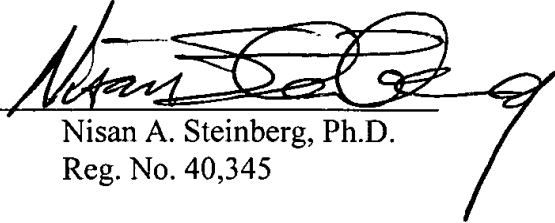
This application is a continuation-in-part of U.S. Patent Application Serial No. 09/359,583, filed on July 22, 1999, which is a continuation of U.S. Patent Application Serial No. 08/832,307, filed on April 3, 1997, which is a continuation of U.S. Patent Application Serial No. 08/442,843, filed on May 17, 1995.

In addition, the continuing data were included in the transmittal accompanying the application (copy enclosed).

Applicant respectfully requests that this information be included on the Filing Receipt.

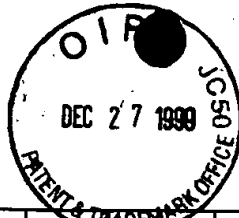
Respectfully submitted,

PRETTY, SCHROEDER & POPLAWSKI, P.C.

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FILING RECEIPT



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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/420,046	10/18/99	1614	\$1,679.00	P07-43084	0	95	19

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*IPS - 11/8/00*  
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ATTY'S INITIALS *NAS*

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts of Application" ("Missing Parts Notice") in this application, please submit any corrections to this Filing Receipt with your reply to the "Missing Parts Notice." When the PTO processes the reply to the "Missing Parts Notice," the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s) HENRY C. LIN, M. D., MANHATTAN BEACH, CA.

CONTINUING DATA AS CLAIMED BY APPLICANT.

THIS APPL IS A CIP OF 09/359,583, WHICH IS A

CONTINUATION OF 08/832,307, WHICH IS A

CONTINUATION OF 08/442,843.

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 11/12/99 \*\* SMALL ENTITY \*\*

TITLE

METHOD AND COMPOSITIONS FOR IMPROVING DIGESTION AND ABSORPTION IN THE  
SMALL INTESTINE

PRELIMINARY CLASS: 514

DATA ENTRY BY: MIDDLETON, MATTIE TEAM: 04 DATE: 11/12/99

\*\*\*\*\*

(See reverse for new important information)

# UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
P07 43084

Total Pages in this Submission  
98

## TO THE ASSISTANT COMMISSIONER FOR PATENTS

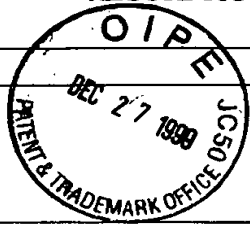
Box Patent Application  
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

METHODS AND COMPOSITIONS FOR IMPROVING DIGESTION AND  
ABSORPTION IN THE SMALL INTESTINE

and invented by:

HENRY C. LIN



If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 09/359,583

Which is a:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 08/832,307

Which is a:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 08/442,843

Enclosed are:

### Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 52 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications (if applicable)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
  - d. ☐ Reference to Microfiche Appendix (if applicable)
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☐ Brief Description of the Drawings (if drawings filed)
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

APPLICATION



for

UNITED STATES LETTERS PATENT

on

METHODS AND COMPOSITIONS FOR IMPROVING DIGESTION AND  
ABSORPTION IN THE SMALL INTESTINE

by

Henry C. Lin, M.D.

Number of Drawings: 0

Docket No.: P07 43084

Attorneys

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LARRY A. BROWN  
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# METHODS AND COMPOSITIONS FOR IMPROVING DIGESTION AND ABSORPTION IN THE SMALL INTESTINE

This application is a continuation-in-part of U.S. Patent Application Serial No. 09/359,583, filed on July 22, 1999, which is a continuation of U.S. Patent  
5 Application Serial No. 08/832,307, filed on April 3, 1997, which is a continuation of U.S. Patent Application Serial No. 08/442,843, filed on May 17, 1995.



## FIELD OF THE INVENTION

The present invention relates to methods and pharmaceutical compositions for controlling the presentation of luminal content in the gastrointestinal tract.

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## BACKGROUND OF THE INVENTION

A principal function of the gastrointestinal tract is to process and absorb food. The stomach, which is both a storage and digestive organ, works to optimize the conditions for the digestion and absorption of food in the small intestine. Following the stomach and preceding the large bowel (colon) is the small intestine, which comprises  
15 three regions: the duodenum, jejunum, and ileum. A major function of the small intestine is one of absorption of digested nutrients.

The passage of a meal through the gastrointestinal tract, which leads to digestion and absorption of nutrients, is controlled by a complex system of inhibitory and stimulatory motility mechanisms which are set in motion by the composition of the meal  
20 ingested. Specific receptors for fats and proteins, and the osmolality, acidity and particle size of the meal activate propulsive and inhibitory reactions, which modulate transit and thus absorption. In normal human subjects, the mechanisms that regulate gastrointestinal transit can, under some circumstances, be sensitized or desensitized in response to the subject's recent dietary history. (K.M. Cunningham *et al.*, *Gastrointestinal adaptation*  
25 *to diets of differing fat composition in human volunteers*, Gut 32(5):483-86 [1991]).

The rate of transit through the small intestine is of great significance for the rate and extent of absorption from the small intestine. Disruption of the normal